

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

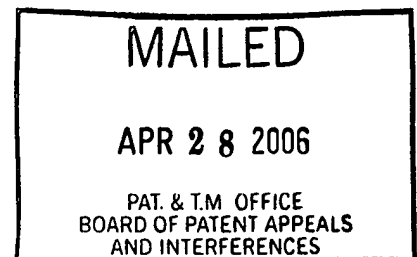
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOSE R. BRUNHEROTO,
PETER S. LEE AND FRANK A. SCHAFFA

Appeal No. 2006-0851
Application No. 09/602,278

ON BRIEF



Before KRASS, JERRY SMITH, and MACDONALD, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 2-24 and 26-29, which constitute all the claims pending in this application.

The disclosed invention pertains to a method and system for automated monitoring of quality of service of digital video material being distributed and played.

Representative claim 2 is reproduced as follows:

2. A method for automated monitoring of quality of service of digital video material being distributed and played, the method comprising:

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embedding a signature in each frame of the digital video material by a program source device control by utilizing a hashing algorithm to produce the signature for each frame in the digital video material during encoding of the digital video material; and

computing play-out statistics for the digital video material based on the signature by a program play-out device control.

The examiner relies on the following references:

Copriviza et al. (Copriviza)	5,319,453	June 07, 1994
Caporizzo	5,574,495	Nov. 12, 1996
Echeita et al. (Echeita)	5,826,165	Oct. 20, 1998
Goodman et al. (Goodman)	6,173,271	Jan. 09, 2001
		(filed Nov. 26, 1997)
Linnartz	6,570,996	May 27, 2003
		(filed Sep. 02, 1998)
Iggulden	6,597,405	July 22, 2003
		(filed Nov. 30, 1999)

The following rejections are on appeal before us:

1. Claims 2, 12-16, 19-24 and 26-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Copriviza in view of Echeita and Iggulden.

2. Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Copriviza in view of Echeita and Iggulden and further in view of Linnartz.

3. Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Copriviza in view of Echeita and Iggulden and further in view of Caporizzo.

4. Claims 4-11 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Copriviza in view of Echeita and Iggulden and further in view of Goodman.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in the claims on appeal. Accordingly, we affirm.

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In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir.

1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered and are deemed to be waived [see 37 CFR § 41.37(c)(1)(vii)(2004)].

We consider first the rejection of claims 2, 12-16, 19-24 and 26-29 based on Copriviza, Echeita and Iggulden. Since appellants do not argue any of these claims separately from the others, we will treat these claims as a single group which is represented by independent claim 2. The examiner essentially finds that Copriviza teaches the invention of claim 2 except for the video material being digital and the signature being produced using a hashing algorithm. The examiner cites Echeita as teaching a method for monitoring the quality of service of

digital material, and the examiner finds that it would have been obvious to the artisan to apply the Copriviza system to digital video. The examiner cites Iggulden as teaching a hashing algorithm to produce a signature for each frame in a video material. The examiner finds that it would have been obvious to the artisan to modify Copriviza to include hashing algorithm signatures as taught by Iggulden in place of the signatures used in Copriviza [final rejection, pages 2-3, incorporated into answer at page 3].

Appellants argue that Iggulden fails to teach or suggest that a hashing algorithm is used to produce the signature for each frame in the video material and/or during encoding of the digital video material. Appellants also argue that Copriviza uses a numbering sequence in order to provide the unique identification of each frame of video material and that such sequential numbering is necessary in Copriviza. Appellants argue that there is nothing to suggest that the hash code signature of Iggulden could provide a predetermined unique and non-repeating sequence as required by Copriviza [brief, pages 7-11].

The examiner responds that Copriviza is relied on for teaching the encoding of each frame of data with a unique

signature, and Iggulden is relied on only for teaching the nature of the signature. The examiner notes that a digital hash code is nothing more than a digital signature based on selected bits within digital frames. The examiner also asserts that even though Copriviza teaches a sequential number signature, Copriviza also teaches that the only requirement is that the signature be unique for each frame [answer, pages 4-5].

Appellants respond that Iggulden and Copriviza fail to teach or suggest using a hashing algorithm to produce a signature that is embedded within each frame of video program material during encoding. Specifically, appellants argue that Iggulden's hash code signatures are not embedded within each frame of video program material during encoding. Appellants argue that there can be no reasonable expectation of success when combining Copriviza and Iggulden [reply brief, pages 2-7].

We will sustain the examiner's rejection of claims 2, 12-16, 19-24 and 26-29. We agree with the examiner that appellants' arguments improperly focus on the individual differences between the references and the claimed invention instead of on the collective teachings of the references. Appellants' arguments with respect to Iggulden focus on the fact that there is no

encoding in Iggulden, but the examiner relies on Copriviza for this teaching. In fact, Copriviza encodes each frame of video material for the exact same reason as disclosed by appellants. Although Copriviza teaches a sequential number signature, Copriviza also teaches that the encoding only requires a portion that identifies each frame uniquely and individually [column 8, lines 29-35]. Thus, the only aspect of the claimed invention not taught by Copriviza, other than the non-argued digital limitation, is the nature of the signature used to uniquely and individually identify each frame of video information. The examiner cited Iggulden only to show that it was well known in the art to identify frames of video information using a binary hash code. Iggulden also teaches that each broadcast segment has a unique signature [column 9, lines 55-58]. Thus, the examiner only proposes to replace the unique sequential signature code of Copriviza with the unique binary hash code taught by Iggulden. The fact that Iggulden uses its code in real time is irrelevant. It is the fact that binary hash codes yield a unique signature that is relied on in the rejection. We agree with the examiner that when the sequential signature which is encoded in Copriviza is replaced by the binary hash code signatures as taught by

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Iggulden, then the invention of representative claim 2 results when applied to digital data as taught by Echeita.

With respect to each of the other rejections under 35 U.S.C. § 103, appellants essentially repeat the arguments discussed above and argue that neither Linnartz, Goodman nor Caporizzo overcomes the deficiencies of Copriviza in view of Echeita and Iggulden [brief, pages 11-28]. Since we have determined that there are no deficiencies in the basic combination of Copriviza, Echeita and Iggulden, and since appellants have not provided any substantive persuasive arguments with respect to these other rejections, then we also sustain the rejection of claims 3-11, 17 and 18 for the same reasons discussed above with respect to claim 2.

In summary, we have sustained each of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 2-24 and 26-29 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED


ERROL A. KRASS
Administrative Patent Judge

Jerry Smith
JERRY SMITH
Administrative Patent Judge

BOARD OF PATENT
APPEALS
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ALLEN R. MACDONALD
Administrative Patent Judge

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